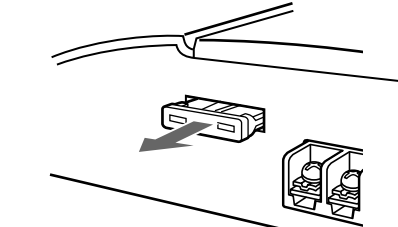


Precaution

- This unit is designed for negative ground 12 V DC operation only.
- Use speakers with suitable impedance (2 to 8 ohms).
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers.
- Avoid installing the unit in areas subject to:
 - high temperatures such as from direct sunlight or hot air from the heater
 - rain or moisture
 - dust or dirt.
- If your car is parked in direct sunlight and there is a considerable rise in temperature inside the car, allow the unit to cool down before use.
- When installing the unit horizontally, be sure not to cover the fins with the floor carpet etc.
- If this unit is placed too close to the car radio, interference may occur. In this case, relocate the amplifier away from the car radio.
- If no power is being supplied to the master unit, check the connections.
- This power amplifier employs a protection circuit* to protect the transistors and speakers if the amplifier malfunctions. Do not attempt to test the protection circuits by covering the heat sink or connecting improper loads.
- Do not use the unit on a weak battery as its optimum performance depends on a good power supply.
- For safety reasons, keep your car audio volume moderate so that you can still hear sounds outside your car.



***Protection circuit**
This amplifier is provided with a protection circuit that activates in the following cases:
— when the unit is overheated
— when a DC current is generated
— when the speaker terminals are short-circuited.
The color of the POWER/PROTECTOR indicator will change from green to red, and the unit will shut down. If this happens, turn off the connected equipment, take out the cassette tape or disc, and determine the cause of the malfunction. If the amplifier has overheated, wait until the unit cools down before using again.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

Troubleshooting Guide

The following checklist will assist in the correction of most problems which you may encounter with your unit.
Before going through the checklist below, refer to the connection and operating procedures.

Problem	Cause/Solution
The POWER/PROTECTOR indicator does not light up.	The fuse is blown. → Replace the fuse with a new one. The ground lead is not securely connected. → Fasten the ground lead securely to a metal surface of the car. The voltage going into the remote terminal is too low. <ul style="list-style-type: none">• The connected master unit is not turned on. → Turn on the master unit.• The system employs too many amplifiers. → Use a relay. Check the battery voltage (10.5 – 16 V).
The OVER CURRENT indicator lights up in red.	Turn off the power switch. The speaker outputs are short-circuited. → Rectify the cause of the short-circuit.
The OFF SET indicator lights up in red.	Turn off the power switch. Make sure the speaker cord and ground lead are securely connected.
The THERMAL indicator lights up in red.	The unit heats up abnormally. <ul style="list-style-type: none">• Use speakers with suitable impedance (2 to 8 ohms).• Make sure to place the unit in a well ventilated location.
Alternator noise is heard.	The power connecting leads are installed too close to the RCA pin cords. → Keep the leads away from the cords. The ground lead is not securely connected. → Fasten the ground lead securely to a metal surface of the car. Negative speaker leads are touching the car chassis. → Keep the leads away from the car chassis.
The sound is muffled.	The FILTER selector switch is set to the "LPF" position.
The sound is too low.	The LEVEL adjustment control is set to the "MIN" position.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
55 watts per channel minimum continuous average power into 4 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.04% total harmonic distortion per Car Audio Ad Hoc Committee standards.

Other Specifications

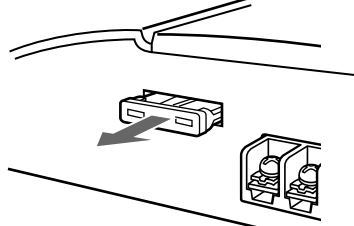
Circuit system	OTL (output transformerless) circuit	Low boost Power requirements	0 – 10 dB (40 Hz) 12 V DC car battery (negative ground)
Inputs	Pulse power supply RCA pin jacks	Power supply voltage	10.5 – 16 V
Outputs	High level input connector Speaker terminals	Current drain	At rated output: 14 A Remote input: 1.4 mA
Speaker impedance	Through out pin jacks	Dimensions	Approx. 258 × 50 × 180 mm (10 1/8 × 2 × 7 1/8 in.) (L/W/p) not incl. projecting parts and controls
Maximum outputs	4 – 8 Ω (when used as a bridging amplifier)	Mass	Approx. 1.9 kg (4 lb. 3 oz.) not incl. accessories
Rated outputs (supply voltage at 14.4 V)	120 W × 2 (at 4 Ω)	Supplied accessories	Mounting screws (4), Terminal cap (1)
Frequency response	330 W (monaural, at 4 Ω)	Optional accessories	Connecting cord for power amplifier RC-46
Harmonic distortion	55 W × 2 (20 Hz – 20 kHz, 0.04 % THD, at 4 Ω) 70 W × 2 (20 Hz – 20 kHz, 0.1 % THD, at 2 Ω) 140 W (monaural) (20 Hz – 20 kHz, 0.1 % THD, at 4 Ω)	Design and specifications are subject to change without notice.	
Input level adjustment range	0.2 – 4.0 V (RCA pin jacks) 0.4 – 8.0 V (High level input)		
High-pass filter	50 – 200 Hz, -12 dB/oct		
Low-pass filter	50 – 200 Hz, -12 dB/oct		

Précautions

- Cet appareil est conçu pour fonctionner sur du courant continu 12 V à masse négative.
- Utilisez des haut-parleurs d'une impédance appropriée (2 à 8 ohms).
- Ne raccordez pas de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes de haut-parleurs de cet appareil. Cette opération pourrait endommager les haut-parleurs actifs.
- N'installez pas l'appareil dans des endroits soumis à:
 - des températures élevées comme sous le rayonnement direct du soleil ou l'air chaud des conduits de chauffage;
 - à la pluie ou à l'humidité;
 - la poussière et aux saletés.
- Si votre voiture est garée en plein soleil et que la température à l'intérieur de l'habitacle a considérablement augmenté, laissez refroidir l'appareil avant de l'utiliser.
- Lorsque vous installez l'appareil à l'horizontale, veillez à ne pas recouvrir la grille d'aération avec le tapis, etc.
- Si cet appareil est trop près de l'autoradio, il est possible qu'il y ait des interférences. Dans ce cas, éloignez l'amplificateur de l'autoradio.
- Si l'appareil principal n'est pas alimenté, vérifiez les connexions.
- Cet amplificateur de puissance utilise un circuit de protection* visant à protéger les transistors et les haut-parleurs en cas de dysfonctionnement de l'amplificateur. Ne tentez pas de tester les circuits de protection en couvrant l'accumulateur de chaleur ou en branchant des charges inadéquates.
- Ne faites pas fonctionner l'appareil si la batterie est faible parce que son niveau de performance optimale dépend d'une bonne alimentation.
- Pour des raisons de sécurité, gardez le volume de votre installation audio de voiture à un niveau permettant encore la perception des bruits extérieurs.

Remplacement du fusible

Si le fusible grille, vérifiez la connexion électrique et remplacez le fusible. Si le fusible grille encore après ce remplacement, il est possible qu'il y ait un dysfonctionnement interne. Dans ce cas, adressez-vous à votre distributeur Sony le plus proche.



*** Circuit de protection**
Cet amplificateur est équipé d'un circuit de protection qui s'active dans les cas suivants:
— en cas de surchauffe de l'appareil
— en cas de génération d'un courant continu
— si les bornes de haut-parleur sont court-circuitées.
L'indicateur POWER/PROTECTOR passe du vert au rouge et l'appareil est coupé.
Dans ce cas, éteignez tout équipement raccordé, retirez la cassette ou le disque et déterminez la cause du dysfonctionnement. Si l'amplificateur a surchauffé, attendez que l'appareil refroidisse avant de le réutiliser.

Si vous avez des questions ou des problèmes concernant votre appareil qui ne sont pas abordés dans ce mode d'empl, adressez-vous à votre distributeur Sony le plus proche.

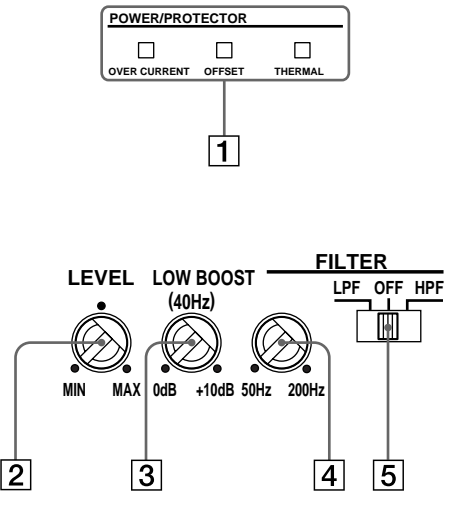
Features

- Maximum power output of 120 watts per channel (at 4 ohms).
- This unit can be used as a bridging amplifier with a maximum output of 330 watts.
- Direct connections can be made with the speaker and outputs of your car audio if it is not equipped with the line output (High level input connection).
- Built in variable LPF (Low-pass filter), HPF (High-pass filter), and low boost circuit.
- Dual mode connection possible for a multi-speaker system.
- Protection circuit and indicator provided.
- Pulse power supply* for stable, regulated output power.

*** Pulse power supply**
This unit has a built-in power regulator which converts the power supplied by the DC 12 V car battery into high speed pulses using a semiconductor switch. These pulses are stepped up by the built-in pulse transformer and separated into both positive and negative power supplies before being converted into direct current again. This is to regulate fluctuating voltage from the car battery. This light weight power supply system provides a highly efficient power supply with a low impedance output.

Location and Function of Controls

- POWER/PROTECTOR indicator**
 - OVER CURRENT lights up green during normal operation. The color will change from green to red when receiving a powerful signal.
 - OFF SET lights up green during normal operation. The color will change from green to red when the voltage going out to the speaker terminal or the pin jack is too high.
 - THERMAL lights up green during normal operation. The color will change from green to red when the temperature rises to an unsafe level. The color will return to green when the temperature returns to normal.
- LEVEL adjustment control**
The input level can be adjusted with this control when using source equipment made by other manufacturers. Turn it to MAX when the output level of the car audio seems low.
- LOW BOOST level control**
Turn this control to boost the frequencies around 40 Hz to a maximum of 10 dB.
- Cut-off frequency adjustment control**
Sets the cut-off frequency (50–200 Hz) for the low-pass or high-pass filters.
- FILTER selector switch**
When the switch is in the LPF position, the filter is set to low-pass. When in the HPF position, the filter is set to high-pass.



Caractéristiques

- Puissance de sortie maximale de 120 watts par canal (à 4 ohms).
- Cet appareil peut être utilisé comme amplificateur de pontage d'une sortie maximale de 330 watts.
- Une connexion directe est possible avec les sorties de haut-parleur de votre autoradio si celle-ci n'est pas équipée d'une sortie de ligne (connexion d'entrée de haut niveau).
- Filtres passe-bas (LPF) et passe-haut (HPF) variables et circuit d'amplification des graves intégrés.
- Double mode de connexion possible au moyen d'un système à plusieurs haut-parleurs.
- Avec circuit et indicateur de protection.
- Alimentation électrique par impulsions* pour une puissance de sortie stable, régulée.

*** Alimentation électrique par impulsions**
Cet appareil est équipé d'un régulateur de puissance intégré qui converti la puissance fournie par une batterie de voiture de 12 V CC en impulsions ultra-rapides au moyen d'un commutateur à semi-conducteur. Ces impulsions sont amplifiées par le transformateur d'impulsions intégré et séparées en alimentation positive et négative avant d'être reconverties en courant continu. Ce processus permet de compenser les fluctuations de tension provenant de la batterie de la voiture. Ce système d'alimentation de faible poids assure une alimentation électrique très efficace pour une sortie d'impédance faible.

SONY

3-866-137-12 (1)

Stereo Power Amplifier

Operating Instructions

Mode d'emploi

Owner's Record

The model and serial numbers are located on the bottom of the unit.
Record the serial number in the space provided below.
Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. XM-552HX Serial No. _____

XM-552HX

Sony Corporation ©1999 Printed in Japan

Installation

Before Installation

- Mount the unit either inside the trunk or under a seat.
- Choose the mounting location carefully so that the unit will not interfere with the normal movements of the driver, and where it will not be exposed to direct sunlight or hot air from the heater.
- Do not install the unit under the floor carpet, where heat dissipation from the unit would be considerably impaired.

First, place the unit where you plan to install it, and mark the positions of the four screw holes on the surface of the mounting board (not supplied). Then drill the holes approximately 3 millimeters (mm) in diameter and mount the unit onto the board with the supplied mounting screws. The supplied mounting screws are 15 mm long. Therefore, make sure that the mounting board is thicker than 15 mm.

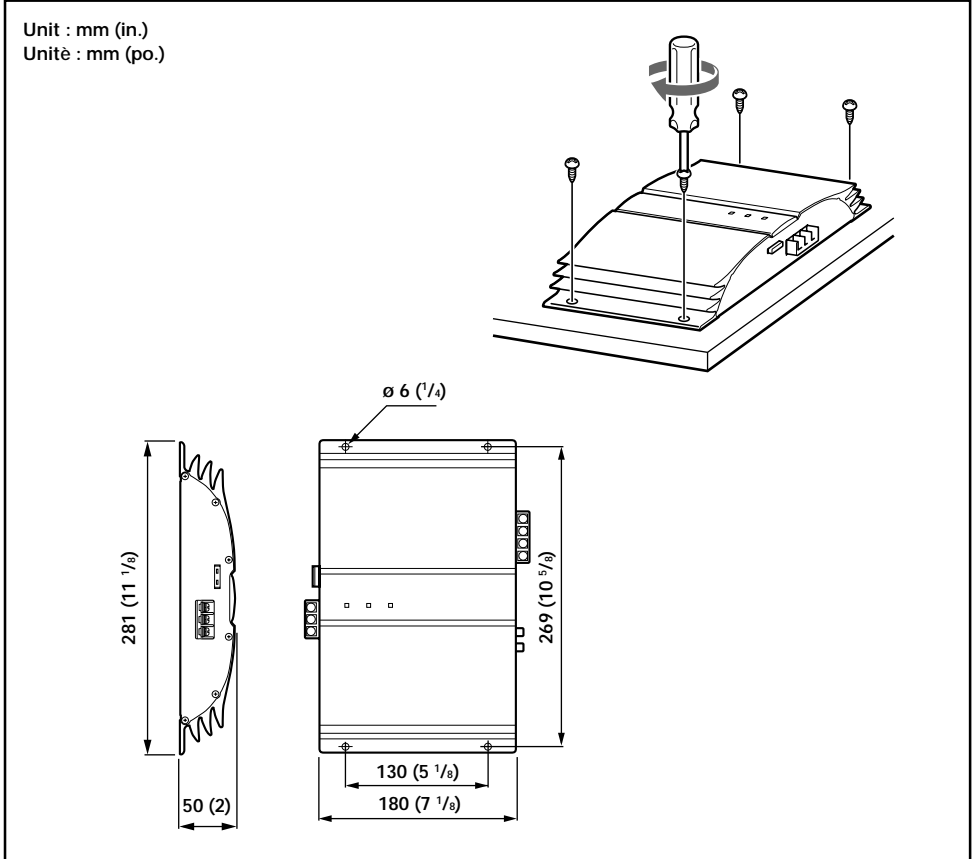
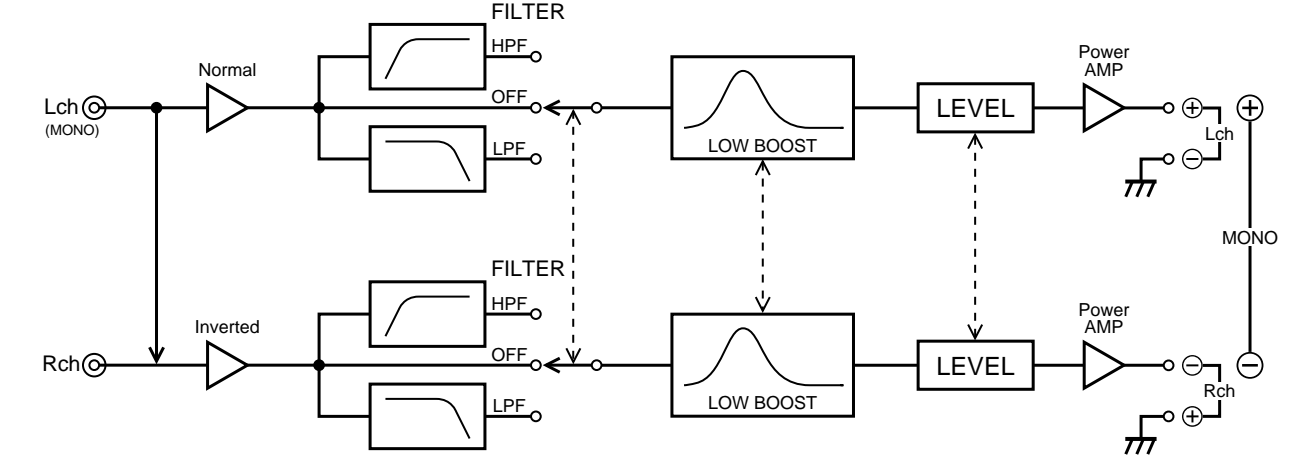
Installation

Avant l'installation

- Installez l'appareil dans le coffre ou sous un siège.
- Choisissez soigneusement l'emplacement de montage afin d'éviter que l'appareil ne gêne pas les mouvements du conducteur et qu'il ne soit pas exposé au rayonnement direct du soleil ni aux conduits d'air chaud du chauffage.
- N'installez pas l'appareil sous le tapis de sol, car cela générerait considérablement la dissipation de chaleur.

Tout d'abord, mettez l'appareil où vous prévoyez de l'installer et tracez les quatre trous de vis sur la surface de la plaque de montage (non fournie). Forez ensuite les trous selon un diamètre d'environ 3 millimètres (mm) et installez l'appareil sur la plaque avec les vis de montage fournies. Les vis de montage fournies font 15 mm de long. Par conséquent, assurez-vous que la plaque de montage fait plus de 15 mm d'épaisseur.

Circuit Diagram / Schéma du circuit



Connections

Caution

- Before making any connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Be sure to use speakers with an adequate power rating. If you use small capacity speakers, they may be damaged.
- Do not connect the ⊖ terminal of the speaker system to the car chassis, and do not connect the ⊖ terminal of the right speaker with that of the left speaker.
- Install the input and output cords away from the power supply lead as running them close together can generate some interference noise.
- This unit is a high-power amplifier. Therefore, it may not perform to its full potential if used with the speaker cords supplied with the car.
- If your car is equipped with a computer system for navigation or for some other purpose, do not to remove the ground wire from the car battery. If you disconnect the wire, the computer memory may be erased.
- To avoid short circuits when making connections, disconnect the +12 V power supply lead until all the other leads have been connected.

Make the terminal connections as illustrated below.

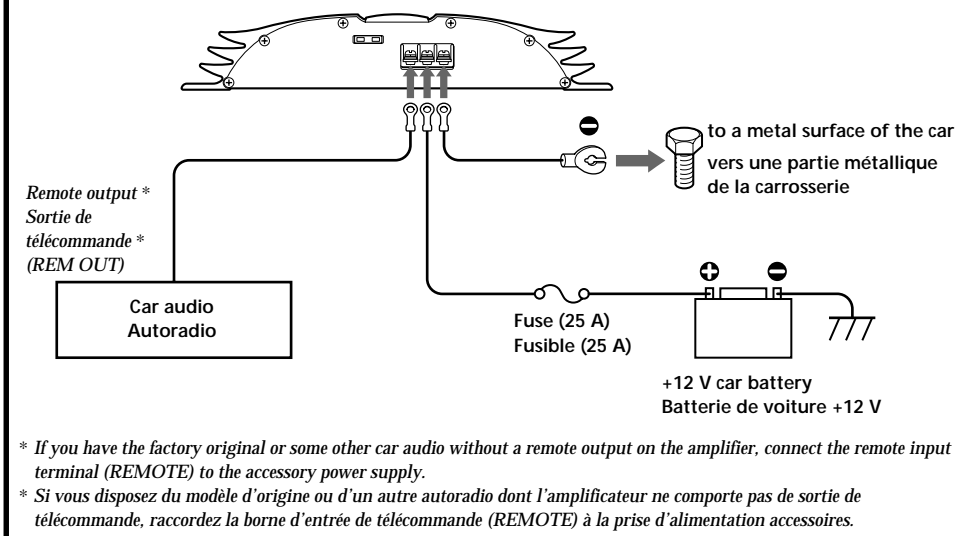
Note

When you tighten the screw, be careful not to apply too much torque* as doing so may damage the screw.

* The torque value should be less than 1 N•m.

Pass the leads through the cap, connect the leads, then cover the terminals with the cap.

Power Connection Leads Câbles d'alimentation



Notes on the power supply

- Connect the +12 V power supply lead only after all the other leads have been connected.
- Be sure to connect the ground lead of the unit securely to a metal surface of the car. A loose connection may cause the amplifier to malfunction.
- Be sure to connect the remote control lead of the car audio to the remote terminal.
- When using a car audio without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.
- Use the power supply lead with a fuse attached (25 A).
- Place the fuse in the power supply lead as close as possible to the car battery.
- Make sure that the leads to be connected to the +12 V and GND terminals of this unit respectively must be larger than 12-Gauge (AWG-12) or with the sectional area of more than 3 mm².
- When using the optional RC-46 power amplifier connecting cord, consult its manual for proper use.

Connexions

Attention

- Avant d'effectuer les connexions, débranchez la borne de masse de la batterie de voiture pour éviter tout court-circuit.
- Veillez à utiliser des haut-parleurs de puissance adéquate. Si vous utilisez des haut-parleurs de faible capacité, ils risquent d'être endommagés.
- Ne raccordez pas la borne ⊖ du système de haut-parleurs à la carrosserie de la voiture ni la borne ⊖ du haut-parleur droit avec celle du haut-parleur gauche.
- Éloignez les câbles d'entrée et de sortie du câble d'alimentation pour éviter les interférences.
- Cet appareil est un amplificateur de haute puissance. Il ne peut donc déployer sa pleine puissance lorsque si les câbles de haut-parleurs de la voiture lui sont raccordés.
- Si votre voiture est équipée d'un système de navigation ou d'un ordinateur de bord, ne retirez pas le fil de terre de la batterie de la voiture, sinon les données mémorisées seront effacées. Pour éviter un court-circuit lorsque vous effectuez les branchements, branchez le câble d'alimentation +12 V après avoir branché tous les autres fils.

Effectuez les connexions de la manière illustrée ci-dessous.

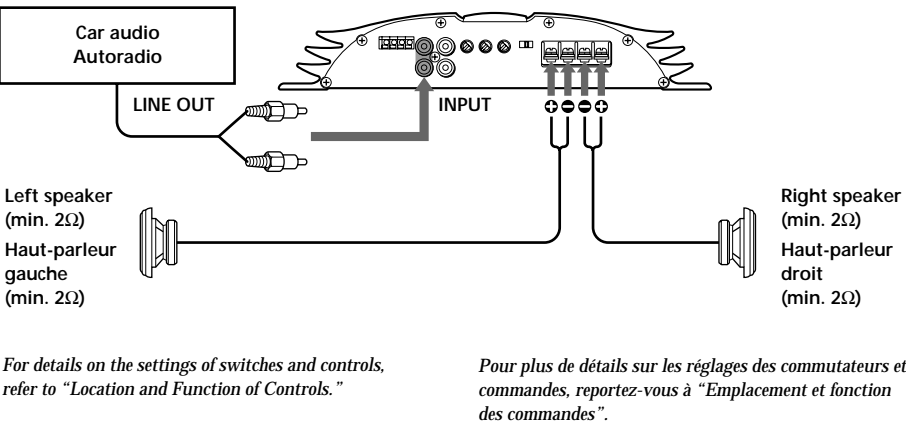
Remarque

Ne serrez pas la vis selon un couple* trop fort car vous pourriez l'endommager.

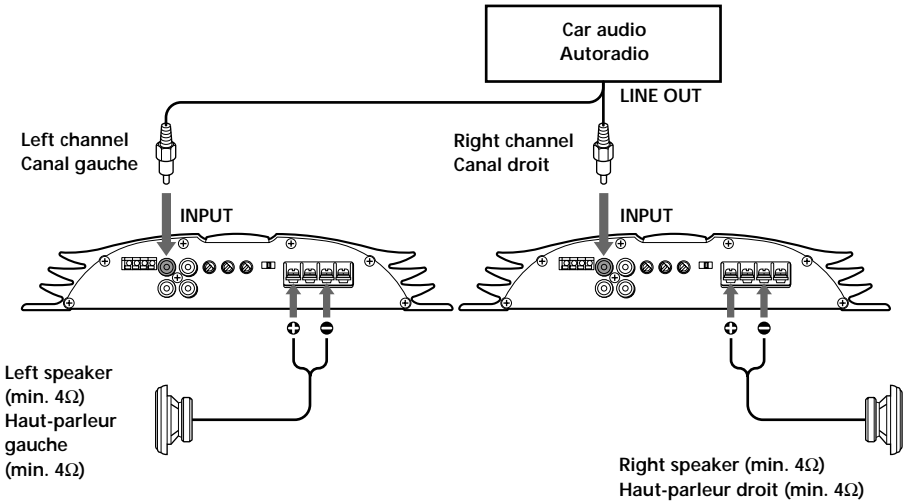
* La valeur du couple de serrage doit être inférieure à 1 N•m.

Faites passer les fils par le cache, raccordez les fils et recouvrez les bornes avec le cache.

2-Speaker System Système à 2 haut-parleurs



As a Monaural Amplifier Comme amplificateur monaural



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

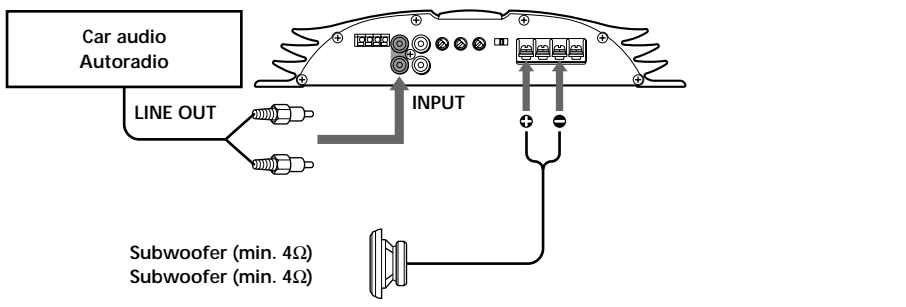
Make sure that the line output from the car audio is connected to the jack marked "L (MONO)" on the unit.

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

Make sure that the line output from the car audio is connected to the jack marked "L (MONO)" on the unit.

As the Monaural Amplifier for a Subwoofer Comme amplificateur monaural pour un haut-parleur d'extrêmes graves



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

If you wish to use a subwoofer as a monaural speaker, connect the speaker as illustrated above. The output signals to the subwoofer will be the combination of the both right and left output signals.

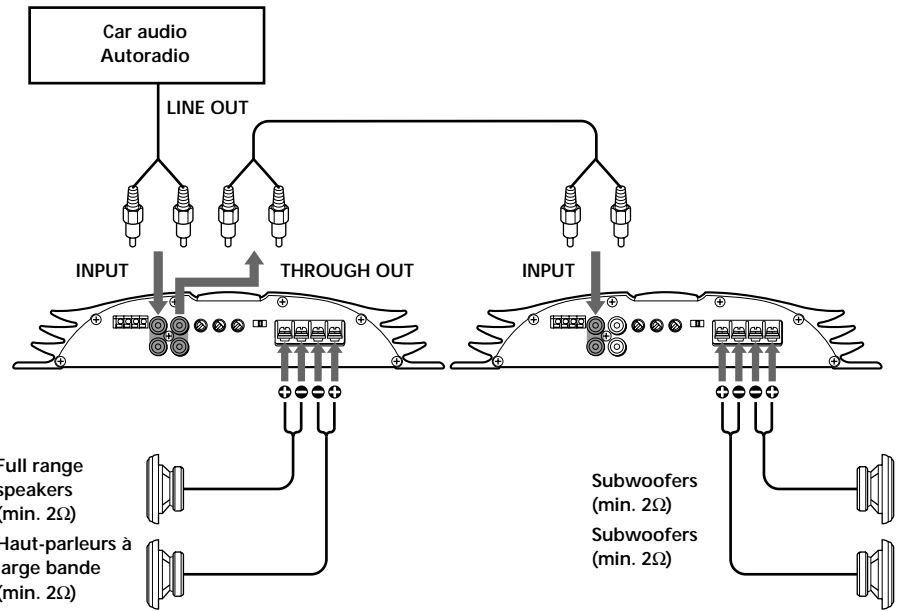
For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

If you wish to use a subwoofer as a monaural speaker, connect the speaker as illustrated above. The output signals to the subwoofer will be the combination of the both right and left output signals.

2-way System Système 2 voies

Two output channels Deux canaux de sortie



Use the THROUGH OUT terminal when you install more amplifiers. In this case, the signals are output as they were input (LOW BOOST, HPF, and LPF do not work).

Notes

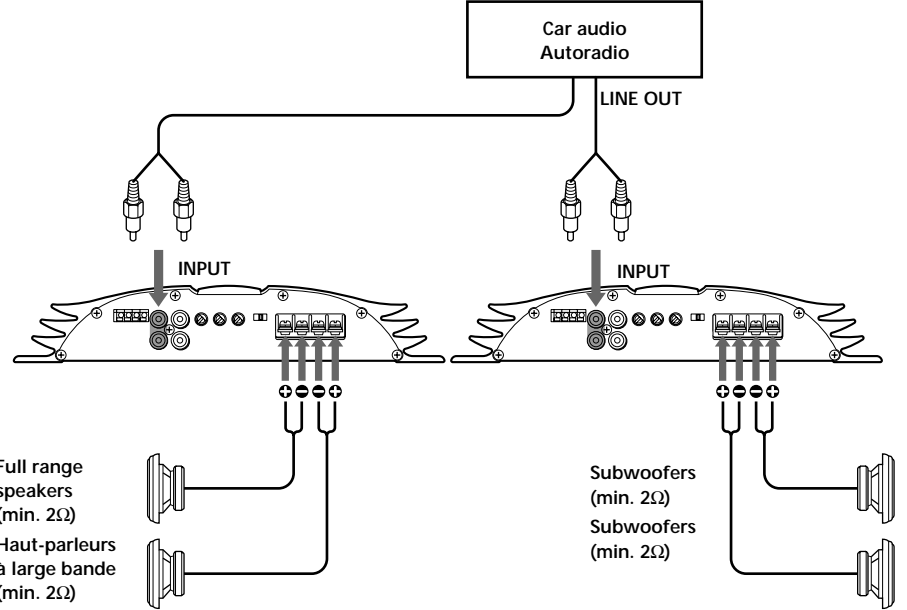
- A maximum of 3 amplifiers can be connected to the THROUGH OUT terminal. If you connect more than 3 amplifiers, it may cause problems such as sound dropout.
- High level input connection cannot use THROUGH OUT.

Utilisez la borne THROUGH OUT lorsque vous installez plusieurs amplificateurs. Dans ce cas, les signaux sont sortis comme ils sont entrés (LOW BOOST, HPF et LPF sont inopérants).

Remarques

- Vous pouvez raccorder un maximum de 3 amplificateurs à la borne THROUGH OUT. Si vous raccordez plus de 3 amplificateurs, cela peut provoquer des problèmes comme des pertes de son.
- Avec une connexion d'entrée de haut niveau, vous ne pouvez pas utiliser THROUGH OUT.

Four output channels Quatre canaux de sortie



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

In this system, the volume of the subwoofers will be controlled by the car audio fader control.

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

In this system, the volume of the subwoofers will be controlled by the car audio fader control.

Dual Mode System (With a Bridged Subwoofer) Double mode de connexion (avec un haut-parleur d'extrêmes graves en pont)

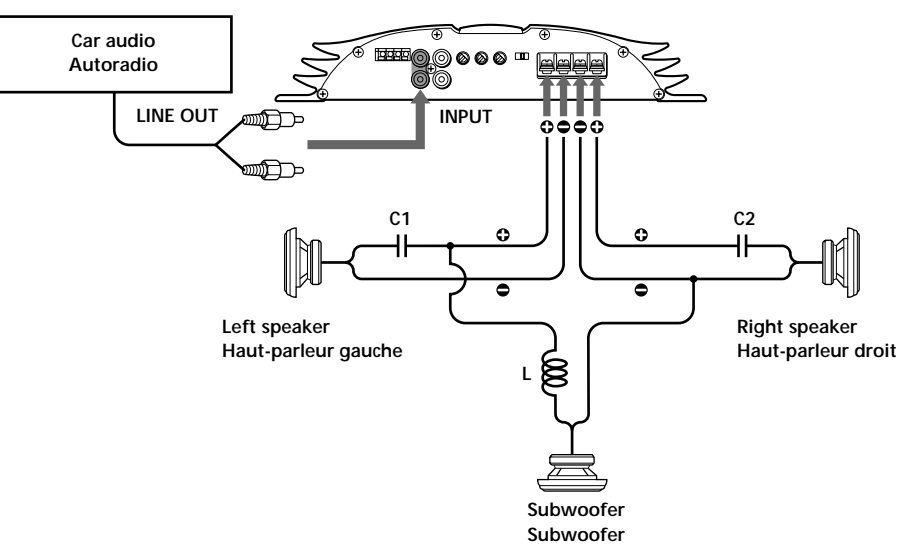


Table of crossover values for 6 dB/octave (4 ohms)

Crossover Frequency unit: Hz	L (coil)* unit: mH	C1/C2 (capacitor)* unit: µF
50	12.7	800
80	8.2	500
100	6.2	400
130	4.7	300
150	4.2	270
200	3.3	200
260	2.4	150
400	1.6	100
600	1.0	68
800	0.8	50
1000	0.6	39

* (not supplied)

Tableau des valeurs de recoupement pour 6 dB/octave (4 ohms)

Fréquence de recoupement unit: Hz	L (bobine)* unité: mH	C1/C2 (condensateur)* unité: µF
50	12.7	800
80	8.2	500
100	6.2	400
130	4.7	300
150	4.2	270
200	3.3	200
260	2.4	150
400	1.6	100
600	1.0	68
800	0.8	50
1000	0.6	39

* (non fourni)

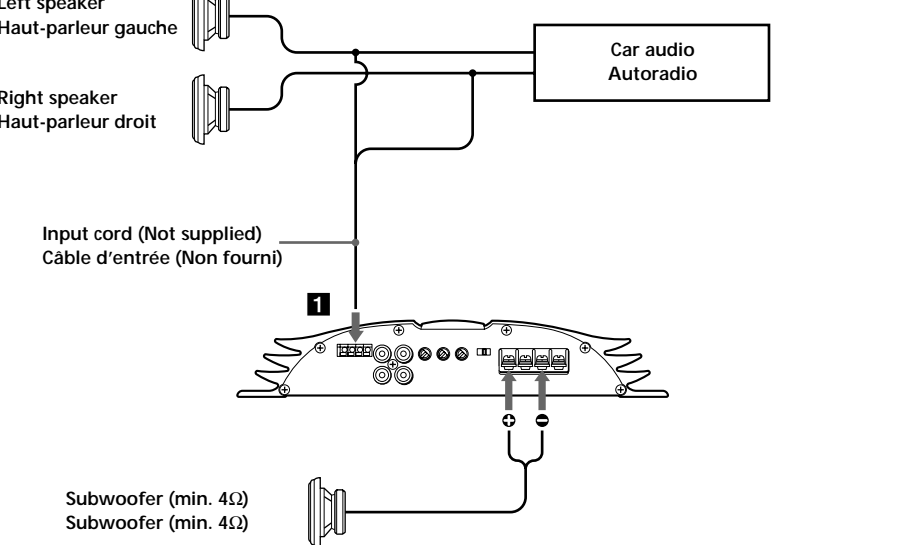
Notes

- When using passive crossover networks in a multi-speaker system, make sure that the speaker system's impedance is not lower than those suitable for this unit.
- When installing a 12 decibel/octave system, where both a choke and capacitor are used in series to form a circuit, be sure to connect the speakers. When neither the ⊕ or ⊖ terminals of the speakers are connected, the impedance in the resonance area will decrease dramatically resulting in a short-circuit-like situation causing the amplifier to become abnormally hot or to malfunction.

Remarques

- Si vous utilisez des circuits de recoupement de fréquence passifs dans un système à plusieurs haut-parleurs, assurez-vous que l'impédance du système n'est pas inférieure à celle prévue pour l'appareil.
- Lorsque vous installez un système à 12 décibels/octaves où la bobine d'arrêt et le condensateur sont utilisés en série pour former un circuit, raccordez les haut-parleurs. Si vous ne raccordez ni la borne ⊕ ni la borne ⊖ des haut-parleurs, l'impédance dans la zone de résonance sera considérablement réduite, ce qui entraînera une situation comparable à un court-circuit et, partant, un échauffement anormal ou un dysfonctionnement de l'amplificateur.

High Level Input Connection (As a Monaural Amplifier for a Subwoofer) Connexion d'entrée à haut niveau (Comme amplificateur monaural pour un haut-parleur d'extrêmes graves)



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

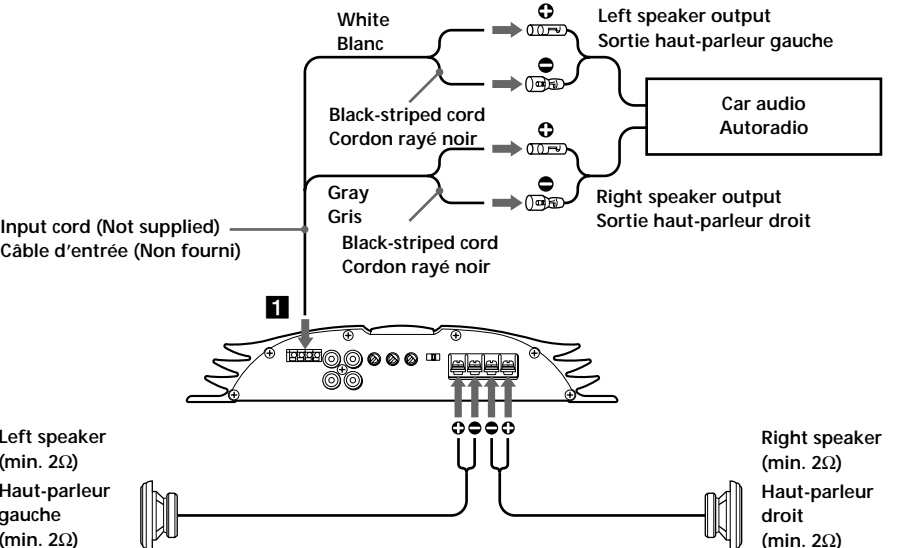
If you wish to use a subwoofer as a monaural speaker, connect the speaker as illustrated above. The output signals to the subwoofer will be the combination of both the right and left output signals.

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

If you wish to use a subwoofer as a monaural speaker, connect the speaker as illustrated above. The output signals to the subwoofer will be the combination of both the right and left output signals.

High Level Input Connection (2-Speaker System) Connexion d'entrée à haut niveau (Système à 2 haut-parleurs)

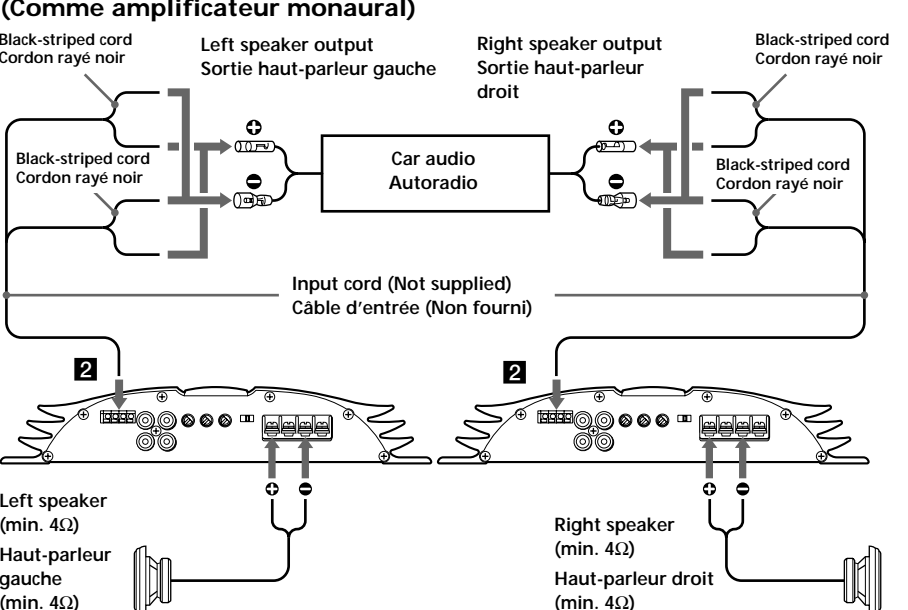


For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

Make sure that the line output from the car audio is connected to the jack marked "L (MONO)" on the unit.

High Level Input Connection (As a Monaural Amplifier) Connexion d'entrée à haut niveau (Comme amplificateur monaural)



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

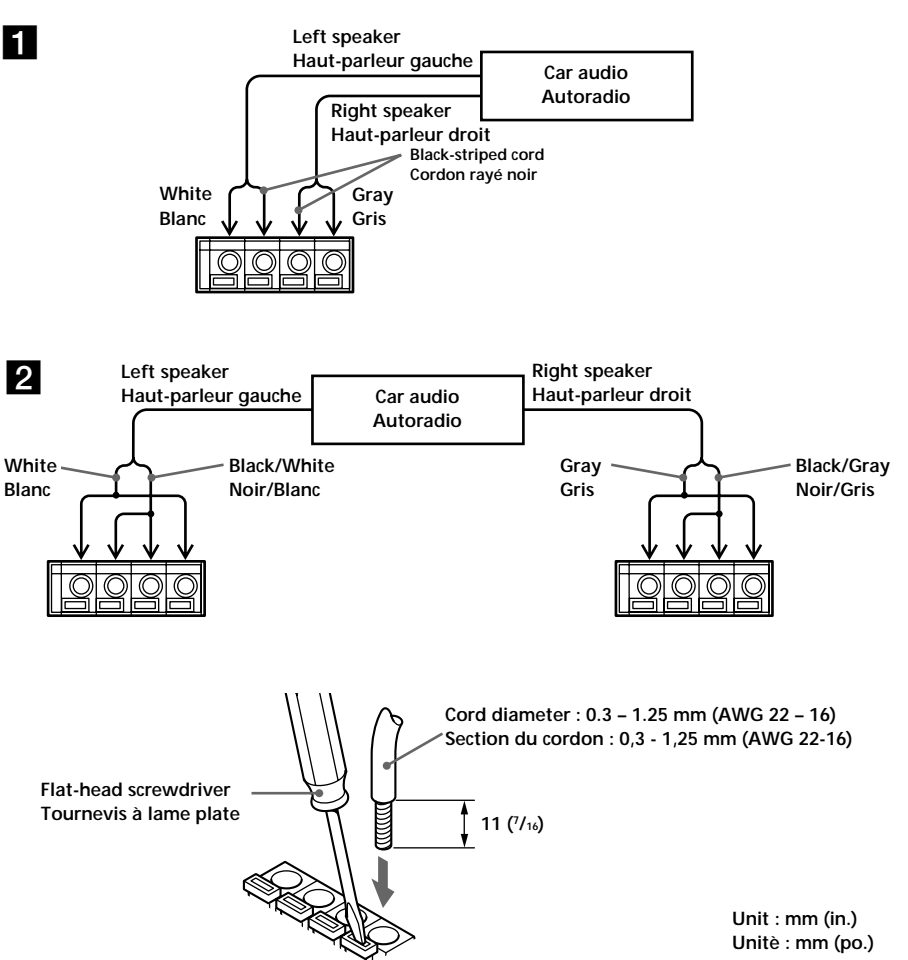
Make sure that the line output from the car audio is connected to the jack marked "L (MONO)" on the unit.

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

Make sure that the line output from the car audio is connected to the jack marked "L (MONO)" on the unit.

Direct speaker cord connection Raccordement direct du cordon de haut-parleur



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

Make sure that the line output from the car audio is connected to the jack marked "L (MONO)" on the unit.

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

Make sure that the line output from the car audio is connected to the jack marked "L (MONO)" on the unit.